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Serial No. : 10/801,025
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IN THE SPECIFICATION:

Please amend the specification as follows:

On page 4, please replace the paragraphs starting on line 1 with the following new paragraphs:

FIG. 10 is a fragmentary elevation view of yet another embodiment of a door assembly of the present invention; [[and]]

FIG. 11 is an exploded enlarged perspective fragmentary view another method of assembling a door assembly of the present invention illustrating top or bottom slide-in panels; and

FIG. 12 is a similar view to FIG. 1B illustrating the top and bottom slide-in panels.

On page 8, please replace the paragraph starting on line 5 with the following new paragraph:

Referring to FIG. 11, another method of constructing a door assembly of the present invention includes providing a flat panel door assembly 510, which is formed from a perimeter frame 512 and door skins 513, and cutting an opening 514, such as a central opening, in the door assembly. As best understood from FIG. 11, a door skin 513 is provided on each side of the perimeter frame to thereby form a contiguous seamless outer surface for each side of the door assembly. The opening is framed by a wood frame support 516 with a groove 518 formed therein along the frame's vertical edges 520 (only one shown) and horizontal edge 522 for receiving an intermediate panel 562, similar to the intermediate panels described in reference to the previous embodiments. The lower member 524 of frame 512 is formed with a transverse opening 526 for inserting intermediate panel 562 into the door and into grooves 518. Alternately, the intermediate panel may be inserted from the top member 528 (FIG. 12) (not shown) of the frame 512. Where upper and lower intermediate

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panels are to be formed, the respective panels (562 and 562') may be inserted from both ends of the door for location in the respective openings 514 and 514'.

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PATENT
KEN02 P-101
Express Mail No. EL994417067USDOOR ASSEMBLY

This application claims priority from provisional application entitled DOOR ASSEMBLY, Ser. No. 60/455,287, filed March 17, 2003, Attorney Docket KEN02 P-100, which is herein incorporated by reference in its entirety.

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TECHNICAL FIELD AND BACKGROUND OF INVENTION

The present invention relates to a door assembly and, more particularly, to a panel door assembly and to a method of making the panel door assembly.

Conventional doors typically fall into two categories: hollow core flat or flush panel doors or solid stile and rail doors. Hollow core panel doors have been typically far less costly to manufacture than solid stile and rail doors and are assembled from a perimeter frame with front and back decorative or door skins mounted over the frame to form the hollow core door. To provide support to the decorative skins, inserts are often provided between the skins with the inserts comprising, for example, cardboard inserts or foam inserts that provide rigidity to the door skins without adding significant weight to the door assembly. 10 Current hollow core doors have been in existence since yearly 1960's. Until fairly recently, 15 the entire surface of the standard hollow core door was smooth or flush.

Heretofore, stile and rail panel interior doors have been constructed from solid stiles and rails. Over the years, several stile and rail wood frame techniques have been attempted to reduce the costs of the solid door while achieving the desired stability. Some of 20 these more recent techniques include providing a stile or rail formed from a wood substrate, such as a less dense wood, a composite, including medium density fiberboard (MDF), with glued wood faced veneers.

More recently, hollow core doors have been introduced that resemble the appearance of a stile and rail door. Although these types of doors resemble a "stile and rail" 25 door, they are still considered a flush door since the pattern is simply stamped onto the door skin, with the doors still constructed as hollow core doors.

Current tastes, however, demand more authentic looking stile and rail doors but without the added expense associated with them. Consequently, there is a need for a "stile and rail" style door that is less costly to manufacture.

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SUMMARY OF THE INVENTION

Accordingly, the present invention provides a door assembly that incorporates elements of a hollow door and of a rail and stile door to produce a door assembly that it constructed similar to a rail and stile door and that has the appearance of a rail and stile door but without the expense of a conventional rail and stile door.

The present invention relates to a method of forming a door assembly. The door is assembled from a pair of hollow core stiles and a pair of rails. A panel is inserted between the rails and the stiles and extends into the rails and stiles. The stiles, rails, and the panel are then interconnected to form a paneled door assembly that has the appearance of a conventional "stile and rail" door.

In one aspect, the hollow core stiles are formed by assembling a sub-frame from a pair of generally horizontally spaced frame members and a pair of generally vertically spaced frame members. Door skins are attached to the front and back sides of the sub-frames to form the hollow core stiles. The rails are preferably interconnected with the stiles by fasteners, such as dowels. Furthermore, the panels are preferably attached to the sub-frames by adhesive bonding.

In other aspects, the rails also comprise hollow core rails and are similarly constructed to the stiles. The panel is inserted into grooves formed in the stiles and rails. For example, the grooves in the stiles are formed in the inwardly facing sides of the sub-frames of the respective stiles and rails.

According to another aspect of the invention, a door assembly includes a pair of stiles, with at least one of the stiles comprising a hollow core, a pair of rails interconnecting the stiles, and at least one panel extending into the stiles and rails and being supported between the pair of stiles and the pair of rails.

For example, the hollow core stile includes a pair of spaced apart generally vertical frame members, a pair of generally horizontal frame members interconnected with the vertical frame members to form a sub-frame, and door skins mounted over the sub-frame and secured to the sub-frame. Preferably, each of the stiles comprises a hollow core stile.

In yet another form, a paneled door assembly includes a pair of stiles, at least one of the stiles comprising a hollow core stile, a pair of rails interconnecting the stiles, with at least one of the rails comprising a hollow core rail, and at least one panel extending into the stiles and rails and being supported between the pair of stiles and the pair of rails.